

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
REGION 5 SACRAMENTO, CENTRAL VALLEY REGION**

**ORDER NO. R5-2005-XXX
NPDES NO. CA0082783**

**WASTE DISCHARGE REQUIREMENTS FOR OAKWOOD LAKE WATER DISTRICT
AND BECK PROPERTIES, OAKWOOD LAKE SUBDIVISION MINING RECLAMATION
PROJECT, SAN JOAQUIN COUNTY**

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 1. Discharger Information

Discharger	Oakwood Lake Water District and Beck Properties
Name of Facility	Oakwood Lake Subdivision Mining Reclamation Project, Manteca
Facility Address	874 East Woodward Avenue
	Manteca, CA 95337
	San Joaquin County

The Discharger is authorized to discharge from the following discharge point as set forth below:

Table 2. Outfall Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Groundwater Seepage, Stormwater	37°, 46', 50" N	121°, 17', 50" W	Sacramento San Joaquin Delta/San Joaquin River

Table 3. Administrative Information

This Order was adopted by the Regional Board on:	<Adoption Date>
This Order shall become effective on:	<Effective Date>
This Order shall expire on:	<Expiration Date>
The U.S. Environmental Protection Agency (USEPA) and the Regional Board have classified this discharge as a minor discharge.	
The Discharger shall file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of the Order expiration date as application for issuance of new waste discharge requirements.	

IT IS HEREBY ORDERED, that Order No. 98-123 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the California Water Code (CWC) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA), and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

I, Thomas R. Pinkos, Executive Officer, do hereby certify the following is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on **<Adoption Date>**.

Thomas R. Pinkos, Executive Officer

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
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TABLE OF CONTENTS

I. Facility Information	3
II. Findings.....	3
III. Discharge Prohibitions	8
IV. Effluent Limitations and Discharge Specifications	9
A. Effluent Limitations – Discharge Point 001.....	9
B. Land Discharge Specifications – Not Applicable.....	11
C. Reclamation Specifications – Not Applicable.....	11
V. Receiving Water Limitations	11
A. Surface Water Limitations	11
B. Groundwater Limitations – Not Applicable	12
VI. Provisions.....	12
A. Standard Provisions	13
B. Monitoring and Reporting Program Requirements.....	16
C. Special Provisions	16
1. Re-opener Provisions	16
2. Special Studies, Technical Reports and Additional Monitoring Requirements	17
3. Best Management Practices and Pollution Prevention – Not Applicable	18
4. Compliance Schedules – Not Applicable.....	18
5. Construction, Operation and Maintenance Specifications – Not Applicable	18
6. Special Provisions for Municipal Facilities – Not Applicable.....	18
7. Other Special Provisions.....	18
VII. Compliance Determination.....	18
Attachment A – Definitions	A-1
Attachment B – Topographic Map	B-1
Attachment C – Wastewater Flow Schematic	C-1
Attachment D – Federal Standard Provisions	D-1
Attachment E – Monitoring and Reporting Program (MRP).....	E-1
Attachment F – Fact Sheet.....	F-1
Attachment G – Priority Pollutant List.....	G-1
Attachment H – WQBEL Calculations	H-1

I. FACILITY INFORMATION

The following Discharger is authorized to discharge in accordance with the conditions set forth in this Order:

Discharger	Oakwood Lake Water District and Beck Properties
Name of Facility	Oakwood Lake Subdivision Mining Reclamation Project, Manteca
Facility Address	874 East Woodward Avenue
	Manteca, CA 95337
	San Joaquin County
Facility Contact, Title, and Phone	Mike Gilton, District Engineer, (209) 652-5351
Mailing Address	Oakwood Lake Water District, P.O. Box 240, Salida, CA 95368
Type of Facility	Reclaimed Sand Mine
Facility Design Flow	18.6 mgd

II. FINDINGS

The California Regional Water Quality Control Board, Central Valley Region (hereinafter Regional Board), finds:

- A. **Background.** Oakwood Lake Water District and Beck Properties (hereinafter “Discharger”) are currently discharging up to 18.6 mgd of groundwater seepage and stormwater from the Oakwood Lake Subdivision Mining Reclamation Project (Facility) under Order No. 98-123 (National Pollutant Discharge Elimination System (NPDES) Permit No. CA0082783).

Brown Sand, Inc. historically operated an aggregate sand excavation at this location, and Oakwood Lake was formed as a result of mining sand from the site. The sand excavation began in 1969, and included dewatering of excavation areas, including Oakwood Lake, with subsequent discharge of this water to the San Joaquin River. Mine dewatering of excavation areas was necessary to mine raw sand product for processing. Active mining areas were separated from previously mined areas by berms. Active mining areas were dewatered to elevations averaging -33 feet mean sea level (msl) by pumping groundwater to Oakwood Lake. Oakwood Lake was then pumped to the San Joaquin River to maintain a water level of approximately -15 feet msl.

In addition to the sand excavation and mining, an affiliated company, Oakwood Lake Inc., operated a concurrent reclamation plan which included a waterpark, campground, commercial areas, and mobile home park.

In June 2000, Brown Sand, Inc. submitted an Interim Management Plan (IMP) for the site to San Joaquin County, for maintenance of the property in “Idle Mine” status in compliance with Section 2770(h) of the Surface Mining and Reclamation Act of 1975 (SMARA). Brown Sand, Inc. submitted a new RWD notifying the Regional Board of the operational change to “Idle Mine” status on January 5, 2001. The notification stated that Brown Sand, Inc. property continues to hold significant reserves, which are estimated to be in excess of two million cubic yards, and that mining could resume in the future.

In January 2001, the San Joaquin County Board of Supervisors approved the Final Environmental Impact Report (EIR) for the final reclamation of the remaining portions of the Brown Sand, Inc. mining property as a Residential Housing Development. This approval also allowed the continued operation and expansion of the waterpark, campground, and mobile home park.

A revised Report of Waste Discharge (RWD) and application for a NPDES permit renewal to discharge up to 18.6 mgd of groundwater seepage and stormwater from the Oakwood Lake Subdivision Mining Reclamation Project (Facility) was initially submitted on June 5, 2002.

In September 2004 the Oakwood Lake Resort and Manteca Waterslide Park were closed and preparations began on the new phase of residential and commercial development. The current reclamation design involves residential subdivision construction beginning at an elevation of +12 feet mean sea level (msl). The residential subdivision at Oakwood Lake will include approximately 500 residential units and commercial development. The existing sewage treatment plant will be expanded from 81,000 gallons per day (gpd) to an estimated 170,000 gpd to accommodate the existing mobile home park uses and new residences at full development. Calculations provided by the Discharger indicate the travel time for groundwater to reach Oakwood Lake from the area underlying the percolation basins will be approximately six months. The new use also introduces new stormwater flows from residential and commercial development surrounding Oakwood Lake.

Oakwood Lake Water District (OLWD) is the governmental entity charged with providing water and sewer services to the new development, and Beck Properties, Inc. is the owner of land to be developed within OWLD. The Discharger submitted a revised RWD and notice of change in ownership and operation on March 15, 2005.

The RWD submitted by the Discharger indicated that the water level in Oakwood Lake will likely rise to approximately +5 feet msl without pumping of groundwater from Oakwood Lake. The Discharger has indicated that most of the housing and commercial development will be constructed on lands reclaimed on approximately +12 feet msl. The Discharger has stated that under the current design, continual dewatering will eventually cease, and Oakwood Lake will have no discharge to the San Joaquin River except under a catastrophic condition (flood/wet season).

On 28 April 2005, the Regional Board requested additional information regarding the precipitation return frequency in which Oakwood Lake would discharge to surface waters given the new residential and commercial development. A companion Time Schedule Order provides a time schedule for the Discharger to either comply with the final effluent limitations of this Order, or provide the water balance information which demonstrates containment of Oakwood Lake water for rainfall periods to the 100 year return period with the annual total distributed monthly in accordance with mean monthly precipitation patterns. If the Discharger successfully demonstrates containment of Oakwood Lake water under these conditions, this Order may be rescinded.

- B. **Facility Description.** The Discharger operates the Oakwood Lake Subdivision, a mining reclamation project. Groundwater seepage and stormwater is discharged from Discharge 001 (see table on cover page) to the San Joaquin River within the boundary of the Sacramento-San Joaquin Delta, a water of the United States within the San Joaquin Delta Hydrologic Area. Attachment B provides a topographic map of the area around the Facility. Attachment C provides a wastewater flow schematic of the Facility.
- C. **Legal Authorities.** This Order is issued pursuant to section 402 of the Federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and Chapter 5.5, Division 7 of the California Water Code (CWC). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements pursuant to Article 4, Chapter 4 of the CWC for discharges that are not subject to regulation under CWA section 402.
- D. **Background and Rationale for Requirements.** The Regional Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and through special studies. Attachments A through H contain background information and detailed rationale for Order requirements and are hereby incorporated into this Order and, thus, constitute part of the Findings for this Order.

E. California Environmental Quality Act (CEQA).

This action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21000, et seq.) in accordance with Section 13389 of the CWC.

F. Technology-based Effluent Limitations. The Code of Federal Regulations (CFR) at 40 CFR 122.44(a) requires that permits include applicable technology-based limitations and standards. This Order includes technology-based effluent limitations based on Best Professional Judgment (BPJ) in accordance with 40 CFR 125.3. A detailed discussion of the technology-based effluent limitations development is included in the Fact Sheet (Attachment F).

G. Water Quality-based Effluent Limitations. Section 122.44(d) of 40 CFR requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Where numeric water quality objectives have not been established, 40 CFR 122.44(d) specifies that WQBELs may be established using USEPA criteria guidance under CWA section 304(a), proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information, or an indicator parameter.

On February 4, 2003, the State Board adopted the 2002 California 303(d) list of impaired water bodies. The listing for the eastern portion of the Delta waterways includes the organo-phosphate pesticides (diazinon and chlorpyrifos), organo-chlorine Group A pesticides (including the organo-chlorine pesticides DDT, endrin aldehyde, and lindane), mercury, and unknown toxicity. The listing for the San Joaquin River downstream of the discharge also includes organic enrichment/low dissolved oxygen. These listings require review and assessment of effluent quality to determine if applicable effluent limitations are necessary. The USEPA requires the Regional Board to develop total maximum daily loads (TMDLs) for each 303(d) listed pollutant.

Regional Board staff is currently in the process of developing TMDLs for some of the 303(d) listed constituents for the Delta waterways. When completed, the TMDLs will allocate waste loads to the various dischargers within the appropriate watersheds. This Order contains effluent limits necessary to protect the beneficial uses of the receiving waters until such time as TMDLs are completed for all constituents of concern on the 303(d) list and loads can be allocated. A Provision of this Order contains a reopener to modify and/or include effluent limits as necessary when load allocations for any 303(d) listed constituents are implemented.

H. Water Quality Control Plans. The Regional Board adopted a *Water Quality Control Plan for the Sacramento and San Joaquin River Basins, Fourth Edition* (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, State Water Resources Control Board (State Board) Resolution No. 88-63 requires that, with certain exceptions, the Regional Board assign the municipal and domestic supply use to water bodies that do not have beneficial uses listed in the Basin Plan. Beneficial uses applicable to the Sacramento San Joaquin Delta are as follows:

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Sacramento San Joaquin Delta (East Delta)	<u>Existing:</u> Municipal and Domestic (MUN); Irrigation and Stock Watering (AGR); Industrial Process Supply (PRO); Industrial Service Supply (IND); Contact Recreation (REC-1); Non-contact Recreation (REC-2); Warm Freshwater Habitat (WARM); Cold Freshwater Habitat (COLD); Warm and Cold Migration of Aquatic Organisms (MIGR); Warm Water Spawning, Reproduction, and/or Early Development (SPWN); Wildlife Habitat (WILD); and Navigation (NAV).

The State Board adopted a *Water Quality Control Plan for Control of Temperature in Coastal and Interstate Waters and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and

amended this plan on September 18, 1975. This plan contains temperature objectives for inland surface waters.

Requirements of this Order specifically implement the applicable Water Quality Control Plans.

- I. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, which was amended on May 4, 1995 and November 9, 1999, and the CTR on May 18, 2000, which was amended on February 13, 2001. These rules include water quality criteria for priority pollutants and are applicable to this discharge.
- J. **State Implementation Policy.** On March 2, 2000, State Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP was effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Boards in their basin plans, with the exception of the provision on alternate test procedures for individual discharges that have been approved by USEPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. The SIP became effective on May 18, 2000. The SIP includes procedures for determining the need for and calculating WQBELs and requires dischargers to submit data sufficient to do so.
- K. **Compliance Schedules and Interim Requirements.** Section 2.1 of the SIP provides that, based on a discharger's request and demonstration that it is infeasible for an existing discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under Section 5.3 of the SIP, a compliance schedule may not exceed 5 years from the date that the permit is issued or reissued nor may it extend beyond 10 years from the effective date of the SIP (or May 18, 2010) to establish and comply with CTR criterion-based effluent limitations. Where a compliance schedule for a final effluent limitation exceeds 1 year, the permit must include interim numeric limitations for that constituent or parameter. Where allowed by the Basin Plan, compliance schedules and interim effluent limitations or discharge specifications may also be granted to allow time to implement a new or revised water quality objective. This Order does not include effluent limitation compliance schedules or interim effluent limitations.
- L. **Antidegradation Policy.** Section 131.12 of 40 CFR requires that State water quality standards include an antidegradation policy consistent with the federal policy. The State Board established California's antidegradation policy in State Board Resolution 68-16, which incorporates the requirements of the federal antidegradation policy. Resolution 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. As discussed in detail in the Fact Sheet, Attachment F, the permitted discharge is consistent with the antidegradation provision of 40 CFR 131.12 and State Board Resolution 68-16.
- M. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order.
- N. **Monitoring and Reporting.** Section 122.48 of 40 CFR requires all NPDES permits to specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWC authorize the Regional Boards to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.
- O. **Standard and Special Provisions.** Standard Provisions, which in accordance with 40 CFR 122.41 and 122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment D. The Regional Board has also included in this Order special provisions applicable to the Discharger. A detailed rationale for the special provisions contained in this Order is provided in the attached Fact Sheet (Attachment F).

- P. **Notification of Interested Parties.** The Regional Board has notified the discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet (Attachment F) of this Order.
- Q. **Consideration of Public Comment.** The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet (Attachment F) of this Order.
- R. **Applicable Plans, Policies, and Regulations.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised State and Tribal water quality standards (WQS) become effective for CWA purposes (40 CFR 131.21, 65 FR 24641, April 27, 2000). Under USEPA's new regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.
- S. **Restrictions no More Stringent than Federal Law.** This Order contains restrictions on individual pollutants that are no more stringent than required by the federal Clean Water Act. Individual pollutant restrictions consist of technology-based restrictions and water quality-based effluent limitations. The technology-based effluent limitations consist of restrictions on total suspended solids (TSS), settleable solids, and turbidity. Restrictions on TSS, settleable solids, and turbidity are specified in federal regulations as discussed in Finding F, and the permit's technology-based pollutant restrictions are no more stringent than required by the Clean Water Act. Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the California Toxics Rule, the California Toxics Rule is the applicable standard pursuant to 40 CFR 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations are based on the CTR-SIP, which was approved by USEPA on May 1, 2001. Beneficial uses and water quality objectives contained in the Basin Plan which were applied in the development of water quality-based effluent limitations were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the [Clean Water] Act" pursuant to 40 CFR 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the technology-based requirements of the Clean Water Act and the applicable water quality standards for purposes of the Clean Water Act.

III. DISCHARGE PROHIBITIONS

- A.** Discharge of groundwater seepage or stormwater at a location or in a manner different from that described in the Findings is prohibited.
- B.** The by-pass or overflow of wastes is prohibited, except as allowed by Standard Provision I.A.7 of Attachment D, Federal Standard Provisions.
- C.** Neither the discharge nor its treatment shall create a nuisance as defined in Section 13050 of the California Water Code.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point 001

1. Final Effluent Limitations

- a. The discharge of groundwater seepage and stormwater shall maintain compliance with the following limitations at Discharge Point 001, with compliance measured at Monitoring Location M-001 as described in the attached Monitoring and Reporting Program (Attachment E):

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow	mgd	--	--	18.6	--	--
Total Suspended Solids	mg/L	20	30	50	--	--
	lbs/day	3100	4600	7800	--	--
Settleable Solids	ml/L	0.5	--	1.0	--	--
Turbidity	NTU	15	20	25	--	--
Antimony (total recoverable)	µg/L	14	--	28	--	--
	lbs/day	2.2	--	4.4	--	--
Arsenic (total recoverable)	µg/L	10	--	--	--	--
	lbs/day	1.6	--	--	--	--
Arsenic (dissolved)	µg/L	--	--	10	--	--
	lbs/day	--	--	1.6	--	--
Copper (total recoverable)	µg/L	7.5	--	15	--	--
	lbs/day	1.2	--	2.3	--	--
Barium (dissolved)	µg/L	--	--	100	--	--
	lbs/day	--	--	16	--	--
Iron (total recoverable)	µg/L	300	--	--	--	--
	lbs/day	47	--	--	--	--
Iron (dissolved)	µg/L	--	--	300	--	--
	lbs/day	--	--	47	--	--
Manganese (total recoverable)	µg/L	50	--	--	--	--
	lbs/day	7.8	--	--	--	--
Manganese (dissolved)	µg/L	--	--	50	--	--
	lbs/day	--	--	7.8	--	--
Specific Conductance (EC at 25°C)	µmhos/cm	1000 (1 Sep - 31 Mar) 700 (1 Apr - 31 Aug)	--	--	--	--

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Aluminum (total recoverable)	µg/L	71	--	140	--	--
	lbs/day	11	--	22	--	--
Ammonia (June-Sep) (total recoverable)	mg/L	0.52	--	--	--	--
	lbs/day	81	--	--	--	--
Ammonia (Oct-May) (total recoverable)	mg/L	0.72	--	--	--	--
	lbs/day	110	--	--	--	--
Chlorine, Total Residual	mg/L	--	--	0.02	--	--
	lbs/day	--	--	3	--	--
pH	standard units	--	--	--	6.5	8.5

b. Survival of aquatic organisms in 96-hour bioassays of undiluted waste shall be no less than:

Minimum for any one bioassay - - - - - 90%

c. The maximum 1-hour average ammonia (total recoverable) in the discharge shall not exceed 2.1 mg/L or 330 lbs/day.

2. Interim Effluent Limitations – Not Applicable

B. Land Discharge Specifications – Not Applicable

C. Reclamation Specifications – Not Applicable

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

Receiving water limitations are based upon water quality objectives contained in the Basin Plan. As such, they are a required part of this Order. The discharge shall not cause the following in the Sacramento San Joaquin Delta:

1. Bacteria: The fecal coliform concentration based on a minimum of not less than five samples for any 30-day period shall not exceed a geometric mean of 200/100 ml, nor shall more than ten percent of the total number of samples taken during any 30-day period exceed 400/100 ml.
2. Dissolved Oxygen: The dissolved oxygen concentration shall not be reduced below 5.0 mg/L.
3. Oil and Grease: Oils, greases, waxes, or other materials in concentrations that cause nuisance, result in a visible film or coating on the water surface or on objects in the water, or otherwise adversely affect beneficial uses.
4. Color: Discoloration that causes nuisance or adversely affects beneficial uses.
5. pH: The ambient pH to be depressed below 6.5, nor raised above 8.5, nor changes in normal ambient pH levels to be exceeded by more than 0.5 units. A monthly averaging period may be used for determining compliance with the above 0.5 receiving water pH limitation.
6. Temperature: The natural receiving water temperature to increase more than 5°F.
7. Settleable Matter: Substances in concentrations that result in the deposition of material that causes nuisance or adversely affects beneficial uses.
8. Radioactivity: Radionuclides to be present in concentrations that are harmful to human, plant, animal or aquatic life nor that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal or aquatic life.
9. Concentrations of radionuclides in excess of the maximum contaminant levels (MCLs) specified in Table 4 (MCL Radioactivity) of Section 64443 of Title 22 of the California Code of Regulations.
10. Toxicity: Toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life. This applies regardless of whether the toxicity is caused by a single substance or the interactive effect of multiple substances.
11. Biostimulatory Substances: Biostimulatory substances which promote aquatic growths in concentrations that cause nuisance or adversely affect beneficial uses.
12. Floating Material: Floating material in amounts that cause nuisance or adversely affect beneficial uses.
13. Sediment: Suspended sediment load and suspended sediment discharge rate altered in such a manner to cause nuisance or adversely affect beneficial uses.

14. Suspended Sediment: Suspended sediment concentrations that cause nuisance or adversely affect beneficial uses.
15. Taste and Order: Taste- or odor-producing substances in concentrations that cause nuisance, adversely affect beneficial uses, or impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin or to domestic or municipal water supplies.
16. Chemical constituents: Chemical constituents to exceed the following concentrations:

<u>Constituent</u>	<u>Unit</u>	<u>Limitation</u>
Dissolved Cyanide	mg/L	0.01
Dissolved Silver	mg/L	0.01
Dissolved Zinc	mg/L	0.1

17. Turbidity: Changes in turbidity that cause nuisance or adversely affect beneficial uses. Turbidity attributable to controllable water quality factors to exceed the following:
 - a. More than 1 Nephelometric Turbidity Units (NTUs) where natural turbidity is between 0 and 5 NTUs.
 - b. More than 20 percent where natural turbidity is between 5 and 50 NTUs.
 - c. More than 10 NTUs where natural turbidity is between 50 and 100 NTUs.
 - d. More than 10 percent where natural turbidity is greater than 100 NTUs.
18. Electrical Conductivity (EC): Electrical conductivity to exceed 700 umhos/cm from April 1 to August 31, or 1000 umhos/cm from September 1 to March 31.
19. Pesticides:
 - a. Pesticides in individual or combined concentrations that adversely affect beneficial uses.
 - b. Pesticide concentrations in bottom sediments or aquatic life that adversely affect beneficial uses.
 - c. Total identifiable persistent chlorinated hydrocarbon pesticides in concentrations detectable within the accuracy of analytical methods approved by the Environmental Protection Agency or the Executive Officer.
 - d. Concentrations exceeding those allowable by applicable antidegradation policies (see State Water Resources Control Board Resolution No. 68-16 and 40 CFR Section 131.12.)
 - e. Concentrations exceeding the lowest levels technically and economically achievable.
 - f. Concentrations exceeding the Maximum Contaminant Levels set forth in California Code of Regulations, Title 22, Division 4, Chapter 15.
 - g. Concentrations of thiobencarb in excess of 1.0 µg/L.
20. Aquatic communities and populations, including vertebrate, invertebrate, and plant species, to be degraded.

B. Groundwater Limitations – Not Applicable

VI. PROVISIONS

A. Standard Provisions

1. **Federal Standard Provisions.** The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.
2. **Regional Board Standard Provisions.** The Discharger shall comply with the following provisions:
 - a. If the Discharger's wastewater treatment plant is publicly owned or subject to regulation by the California Public Utilities Commission, it shall be supervised and operated by persons possessing certificates of appropriate grade according to Title 23, California Code of Regulations (CCR), Division 3, Chapter 14.
 - b. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
 - i. violation of any term or condition contained in this Order;
 - ii. obtaining this Order by misrepresentation or by failing to disclose fully all relevant facts;
 - iii. a change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; and
 - iv. a material change in the character, location, or volume of discharge.

The causes for modification include:

- i. New regulations. New regulations have been promulgated under Section 405(d) of the Clean Water Act, or the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued.
- ii. Land application plans. When required by a permit condition to incorporate a land application plan for beneficial reuse of sewage sludge, to revise an existing land application plan, or to add a land application plan.
- iii. Change in sludge use or disposal practice. Under 40 Code of Federal Regulations (CFR) 122.62(a)(1), a change in the Discharger's sludge use or disposal practice is a cause for modification of the permit. It is cause for revocation and reissuance if the Discharger requests or agrees.

The Regional Board may review and revise this Order at any time upon application of any affected person or the Board's own motion.

- c. If a toxic effluent standard or prohibition (including any scheduled compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the CWA, or amendments thereto, for a toxic pollutant that is present in the discharge authorized herein, and such standard or prohibition is more stringent than any limitation upon such pollutant in this Order, the Board will revise or modify this Order in accordance with such toxic effluent standard or prohibition.

The Discharger shall comply with effluent standards and prohibitions within the time provided in the regulations that establish those standards or prohibitions, even if this Order has not yet been modified.

- d. This Order shall be modified, or alternately revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 04(b)(2), and 307(a)(2) of the CWA, if the effluent standard or limitation so issued or approved:
 - i. contains different conditions or is otherwise more stringent than any effluent limitation in the Order; or
 - ii. controls any pollutant limited in the Order.

The Order, as modified or reissued under this paragraph, shall also contain any other requirements of the CWA then applicable.

- e. The provisions of this Order are severable. If any provision of this Order is found invalid, the remainder of this Order shall not be affected.
- f. The Discharger shall ensure compliance with any existing or future pretreatment standard promulgated by USEPA under Section 307 of the CWA, or amendment thereto, for any discharge to the municipal system.
- g. The discharge of any radiological, chemical or biological warfare agent or high-level, radiological waste is prohibited.
- h. A copy of this Order shall be maintained at the discharge facility and be available at all times to operating personnel. Key operating personnel shall be familiar with its content.
- i. Neither the treatment nor the discharge shall create a condition of nuisance or pollution as defined by the CWC, Section 13050.
- j. Safeguard to electric power failure:
 - i. The Discharger shall provide safeguards to assure that, should there be reduction, loss, failure of electric power, the discharge shall comply with the terms and conditions of this Order.
 - ii. Upon written request by the Board the Discharger shall submit a written description of safeguards. Such safeguards may include alternate power sources, standby generators, retention capacity, operating procedures, or other means. A description of the safeguards provided shall include an analysis of the frequency, duration, and impact of power failures experienced over the past five years on effluent quality and on the capability of the Discharger to comply with the terms and conditions of the Order. The adequacy of the safeguards is subject to the approval of the Board.
 - iii. Should the treatment works not include safeguards against reduction, loss, or failure of electric power, or should the Board not approve the existing safeguards, the Discharger shall, within ninety days of having been advised in writing by the Board that the existing safeguards are inadequate, provide to the Board and USEPA a schedule of compliance for providing safeguards such that in the event of reduction, loss, or failure of electric power, the Discharger shall comply with the terms and conditions of this Order. The schedule of compliance shall, upon approval of the Board, become a condition of this Order.
- k. The Discharger, upon written request of the Board, shall file with the Board a technical report on its preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events.

The technical report shall:

 - i. Identify the possible sources of spills, leaks, untreated waste by-pass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes should be considered.
 - ii. Evaluate the effectiveness of present facilities and procedures and state when they became operational.
 - iii. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule containing interim and final dates when they will be constructed, implemented, or operational.

The Board, after review of the technical report, may establish conditions, which it deems necessary to control accidental discharges and to minimize the effects of such events. Such conditions shall be incorporated as part of this Order, upon notice to the Discharger.

- l. A publicly owned treatment works (POTW) whose waste flow has been increasing, or is projected to increase, shall estimate when flows will reach hydraulic and treatment capacities of its treatment and disposal facilities. The projections shall be made in January, based on the last three years' average dry weather flows, peak wet weather flows and total annual flows, as appropriate. When any projection shows that capacity of any part of the facilities may be exceeded in four years, the Discharger shall notify the Board by **January 31**. A copy of the notification shall be sent to appropriate local elected officials, local permitting agencies and the press. Within 120 days of the notification, the Discharger shall submit a technical report showing how it will prevent flow volumes from exceeding capacity or how it will increase capacity to handle the larger flows. The Board may extend the time for submitting the report.
- m. The Discharger shall submit technical reports as directed by the Executive Officer.
- n. Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. In the event a certified laboratory is not available to the Discharger, analyses performed by a noncertified laboratory will be accepted provided a Quality Assurance-Quality Control Program is instituted by the laboratory. A manual containing the steps followed in this program must be kept in the laboratory and shall be available for inspection by Board staff. The Quality Assurance-Quality Control Program must conform to USEPA guidelines or to procedures approved by the Board.
 - i. Unless otherwise specified, all metals shall be reported as Total Metals.
 - ii. Unless otherwise specified, bioassays shall be performed in the following manner:
 - 1. Acute bioassays shall be performed in accordance with guidelines approved by the Board and the Department of Fish and Game or in accordance with methods described in USEPA's manual for measuring acute toxicity of effluents (EPA-821-R-02-012 and subsequent amendments).
 - 2. Short-term chronic bioassays shall be performed in accordance with USEPA guidelines (EPA-821-R-02-013 and subsequent amendments).
- o. Laboratories that perform sample analyses must be identified in all monitoring reports submitted to the Board and USEPA.
- p. The Discharger shall conduct analysis on any sample provided by USEPA as part of the Discharge Monitoring Quality Assurance (DMQA) program. The results of any such analysis shall be submitted to USEPA's DMQA manager.
- q. Effluent samples shall be taken downstream of the last addition of wastes to the treatment or discharge works where a representative sample may be obtained prior to mixing with the receiving waters. Samples shall be collected at such a point and in such a manner to ensure a representative sample of the discharge.
- r. All monitoring and analysis instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary, at least yearly, to ensure their continued accuracy.
- s. The Discharger shall file with the Board technical reports on self-monitoring performed according to the detailed specifications contained in the Monitoring and Reporting Program attached to this Order.

- t. The results of all monitoring required by this Order shall be reported to the Board, and shall be submitted in such a format as to allow direct comparison with the limitations and requirements of this Order. Unless otherwise specified, discharge flows shall be reported in terms of the monthly average and the daily maximum discharge flows.
- u. Upon written request of the Board, the Discharger shall submit a summary monitoring report to the Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year(s).
- v. All technical reports required herein that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code, Sections 6735, 7835, and 7835.1. To demonstrate compliance with Title 16, CCR, Sections 415 and 3065, all technical reports must contain a statement of the qualifications of the responsible registered professional(s). As required by these laws, completed technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.
- w. The Discharger shall take all reasonable steps to minimize any adverse effects to waters of the State or users of those waters resulting from any discharge or sludge use or disposal in violation of this Order. Reasonable steps shall include such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge or sludge use or disposal.

B. Monitoring and Reporting Program Requirements

The discharger shall comply with the Monitoring and Reporting Program, and future revisions thereto, in Attachment E of this Order.

C. Special Provisions

1. Re-opener Provisions

- a. Upon adoption of any applicable water quality standard for receiving waters by the Regional Board or the State Water Resources Control Board (State Board) pursuant to the CWA and regulations adopted thereunder, this permit may be reopened and receiving water limitations added.
- b. This Order shall be reopened, as necessary, and alternative final effluent limitations established for dissolved oxygen based upon a waste load allocation derived from the Stockton Deep Water Ship Channel TMDL.
- c. This Order shall be reopened, as necessary, and alternative final effluent limitations established for mercury based upon a waste load allocation derived from the Delta waterways TMDL, a site-specific water quality objective, or based upon new criteria.
- d. If after review of effluent monitoring results or the study results specified in Section VI.C.2.a, it is determined that the discharge has reasonable potential to cause or contribute to an exceedance of a water quality objective, this Order will be reopened and effluent limitations added for the subject constituents.
- e. If chronic toxicity testing specified in Section VI.C.2.b indicates that the discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the water quality objective for toxicity, this Order shall be reopened and a chronic toxicity limitation included and/or a limitation for the specific toxicant identified in the TRE included. Additionally, if a chronic

toxicity water quality objective is adopted by the State Water Resources Control Board, this Order may be reopened and a limitation based on that objective included.

- f. If the Discharger elects to conduct a translator study for barium, iron, or manganese, the Regional Board would consider the information in re-evaluating the reasonable potential to exceed the Basin Plan Trace Element objectives for these constituents; and if necessary this Order shall be reopened to revise existing requirements for barium, iron, or manganese.
- g. If the Discharger elects to conduct a dilution study, the Regional Board would consider the information in re-evaluating applicable effluent limitations and other requirements established in this Order; and if necessary this Order shall be reopened to revise existing requirements.
- h. Upon completion of the *Interim Mercury Mass Limitation Report* required by this Order, this Order shall be reopened and an interim performance based mercury mass effluent limitation established.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

- a. There are indications that the discharge may contain constituents that have a reasonable potential to cause or contribute to an exceedance of water quality objectives: Benzo(b)Fluoranthene, Hexachlorobutadiene, and N-Nitrosodimethylamine. The Discharger shall comply with the following time schedule in conducting a study of these constituents potential effect in surface waters:

Task	Compliance Date
Submit Workplan and Time Schedule	6 months after the first day of discharge authorized under this Order.
Begin Study	9 months after the first day of discharge authorized under this Order.
Complete Study	21 months after the first day of discharge authorized under this Order.
Submit Study Report	24 months after the first day of discharge authorized under this Order.

The Discharger shall submit to the Regional Board on or before each compliance due date, the specified document or a written report detailing compliance or noncompliance with the specific date and task. If noncompliance is reported, the Discharger shall state the reasons for noncompliance and include an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Regional Board by letter when it returns to compliance with the time schedule.

If after review of the study results it is determined that the discharge has reasonable potential to cause or contribute to an exceedance of a water quality objective this Order will be reopened and effluent limitations added for the subject constituents.

- b. The Discharger shall conduct the chronic toxicity testing specified in the Monitoring and Reporting Program. If the testing indicates that the discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the water quality objective for toxicity, the Discharger shall initiate a Toxicity Identification Evaluation (TIE) to identify the causes of toxicity. Upon completion of the TIE, the Discharger shall submit a workplan to conduct a Toxicity Reduction Evaluation (TRE) and, after Regional Board evaluation, conduct the TRE.
- c. The Discharger shall submit within eighteen (18) months of adoption of this Order an *Interim Mercury Mass Limitation Report* which summarizes flow and effluent mercury data collected pursuant to Attachment E, Monitoring and Reporting Program, of this Order.

3. Best Management Practices and Pollution Prevention – Not Applicable

4. Compliance Schedules – Not Applicable

5. Construction, Operation and Maintenance Specifications – Not Applicable

6. Special Provisions for Municipal Facilities – Not Applicable

7. Other Special Provisions

- a. Prior to making any change in the discharge point, place of use, or purpose of use of the wastewater, the Discharger shall obtain approval of, or clearance from the State Water Resources Control Board (Division of Water Rights).
- b. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office.

To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the State of incorporation if a corporation, address and telephone number of the persons responsible for contact with the Regional Board and a statement. The statement shall comply with the signatory paragraph of Standard Provision E.2, Attachment D, and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code. Transfer shall be approved or disapproved in writing by the Executive Officer.

VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in Section IV of this Order will be determined as specified below:

- A. Average Monthly Effluent Limitation (AMEL).** If the average of daily discharges over a calendar month exceeds the AMEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). The average of daily discharges over the calendar month that exceeds the AMEL for a parameter will be considered out of compliance for that month only. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the discharger will be considered out of compliance for that calendar month. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.
- B. Average Weekly Effluent Limitation (AWEL).** If the average of daily discharges over a calendar week exceeds the AWEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. The average of daily discharges over the calendar week that exceeds the AWEL for a parameter will be considered out of compliance for that week only. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the discharger will be considered out of compliance for that calendar week. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week.
- C. Maximum Daily Effluent Limitation (MDEL).** If a daily discharge exceeds the MDEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance

for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.

- D. Instantaneous Minimum Effluent Limitation.** If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, a violation will be flagged and the discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).
- E. Instantaneous Maximum Effluent Limitation.** If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, a violation will be flagged and the discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).
- F. Maximum 1-Hour Average Effluent Limitation.** If the average of analytical results of samples collected within 1-hour is higher than the maximum 1-hour average effluent limitation for a parameter, a violation will be flagged and the discharger will be considered out of compliance for that parameter.